

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

The Applicant acknowledges with appreciation the indication in the Final Rejection that claim 29 is allowable.

As an initial matter, the Applicant submits that the finality of the present rejections is unwarranted. The Office Action dated March 17, 2008, indicated that original claim 3 was allowable. In the Amendment dated June 13, 2008, claim 18 substantially recited the subject matter of allowable claim 3 in independent form, independent claim 33 was a method corresponding to the subject matter of apparatus claim 18, and all other claims depended from claim 18. Thus, Applicant's June 13, 2008, amendments of the claims did not raise a new issue that would necessitate a different basis for rejecting the claims; more simply, the present final rejection of claim 18 is the Office's first rejection applied to this subject matter. Therefore, withdrawal of the finality of the rejections is deemed to be warranted and is requested.

Independent claim 18 has been amended to incorporate the subject matter of claim 19 in a slightly revised form, and claim 19 has been canceled. Independent method claim 33 has been amended to correspond to the subject matter of apparatus claim 18. The grammar of claims 31 and 32 has been revised. Support for the amendments is provided for example in claims 19 and 20, the original claims, and paragraphs [0058], [0061], [0066], and [0067] of the published specification. The complete listing of claims 18 and 20-33, above, is believed to overcome the objections applied to claims 20, 26, 27, and 30 and the 35 USC 112, first and second paragraph rejections applied to claim 30. The amendments were not presented earlier due to the unforeseeability of the remarks presented in the Final Rejection.

Claims 18, 21, 28, and 31-33 were rejected, under 35 USC § 103(a), as being unpatentable over Gerlach et al. (US 6,628,723) in view of Mody et al. (US 2002/0181509). Claim 19 was rejected, under 35 USC § 103(a), as being unpatentable over Gerlach in view of Mody and Diepstraten et al. (US 5,422,887). Claims 22-24 were rejected, under 35 USC § 103(a), as being unpatentable over Gerlach in view of Mody and Sudo et al. (EP 1 014 639). Claims 25 and 27 were rejected, under 35 USC § 103(a), as being unpatentable over Gerlach in view of Mody and Kostic et al. (US 6,885,630). To the extent these rejections may be deemed applicable to the amended claims, the Applicant respectfully traverses as follows.

Claim 18 recites features of canceled claim 19 and defines a transmitting apparatus that: (1) sets the length of a first guard interval of encoded systematic bit data longer than the length of a second guard interval of encoded parity bit data (originally recited in claim 18) and (2) lengthens the first guard interval or the second guard interval in accordance with an increase in the number of retransmissions of the systematic bit data and the parity bit data (revision of the subject matter of claim 19). The claimed subject matter supports incrementally increasing the transmission delay of encoded information so as to avoid an excessive transmission delay (see specification page 4, lines 6-10). (References herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

With regard to feature (1), above, the Final Rejection proposes that Mody discloses, in claim 49, setting the length of a guard interval (i.e., cyclic prefixes) within a channel-training preamble longer than the length of a guard interval within data symbols (see Final Rejection page 4, fourth paragraph, and Mody claim 49 and paragraph [0040]). Thus, the Final Rejection seems to identify Mody's data symbols as corresponding to the Applicant's claimed encoded

systematic bit data and Mody's channel-training preamble as corresponding to the claimed encoded parity bit data.

However, Mody discloses setting the length of the guard interval within the preamble (e.g., the claimed encoded parity bit data) longer than the length of the guard interval in the data symbol (e.g., the claimed encoded systematic bit data), whereas the claimed subject matter sets the guard lengths in the opposite manner. More specifically, claim 18 recites setting the length of the guard interval of the encoded systematic bit data longer than that of the encoded parity bit data. And Gerlach is not cited for supplementing the teachings of Mody in this regard. Accordingly, Gerlach and Mody do not suggest all of the original features of claim 18.

Moreover, claim 18 now recites lengthening the first guard interval or the second guard interval in accordance with an increase in the number of retransmissions of the systematic bit data and the parity bit data.

The Final Rejection proposes that Mody discloses, in Fig. 3, increasing a guard interval  $G$  between data symbols  $N$  so as to reduce inter-symbol interference (ISI) (see Final Rejection section 8, third paragraph, and Mody paragraph [0048]). Additionally, the Final Rejection proposes that Diepstraten discloses a relationship between a contention backoff time and a number of retransmission attempts for reducing communication collisions in a shared communication channel (see Final Rejection page 7, second paragraph, and Diepstraten col. 4, lines 42-61).

Although the Final Rejection does not clearly identify how Mody's teachings might be modified in accordance with those of Diepstraten so as to achieve the limitations of claim 19 that are now recited in claim 18, the Applicant notes that the "relation," identified in the Final Rejection, between Diepstraten's contention backoff time and the number of retransmission

attempts is a "random" relationship. More specifically, Diepstraten discloses assigning a random contention backoff time having a value between 0 and  $2^{R+K}-1$ , where R is the minimum value between 10 and the number of retransmission attempts and K is a retry counter offset (see Diepstraten col. 4, lines 53-61). Thus, Diepstraten discloses randomly varying the contention backoff time rather than increasing it in accordance with the number of retransmission attempts.

Moreover, Diepstraten discloses a way of reducing the likelihood of multiple communication devices transmitting simultaneously (i.e., causing communication collisions) within a shared communication channel so as to increase the likelihood that the transmitted information will be received correctly (see Diepstraten abstract). Mody discloses a way of reducing ISI among symbols transmitted by a single communication device (see Mody paragraph [0048]). Applying a contention backoff time to Mody's communication scheme would not affect the ISI performance of Mody's system in any way. At most, as seemingly acknowledged in the Final Rejection (see Final Rejection section 8, last paragraph), the application of Diepstraten's teachings within Mody's system might reduce the likelihood of two communication devices transmitting information at the same time within a shared channel, assuming Mody's system were modified to support contention-based access to a shared communication channel.

More specifically, the Final Rejection proposes that a skilled artisan would find motivation to modify Mody's system with Diepstraten's teachings so as to increase throughput in Mody's system by improving the contention-based access fairness of a shared channel while reducing transmission collisions (see Final Rejection section 8, last paragraph). However, Mody does not disclose contention-based access of a shared communication channel or transmission collisions within such a channel. Thus, the Final Rejection's proposed motivation for modifying Mody's system would not achieve the advantage proposed by the Final Rejection and would have

no effect on the ISI performance of Mody's system. As a result, a skilled artisan would find no motivation to modify Mody's system in light of Diepstraten's teachings and Gerlach does not supplement the teachings of Mody and Diepstraten in this regard.

Accordingly, the Applicant submits that Gerlach, Mody and Diepstraten, considered individually or in combination, do not render obvious the subject matter now defined by claim 18. Independent claim 33 similarly recites the above-mentioned subject matter distinguishing apparatus claim 18 from the applied references, but with respect to a method. Therefore, the rejections applied to claims 22-25 and 27 are obviated and allowance of claims 18 and 33 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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